BELLSOUTH

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September 30, 2002

WRITTEN EX PARTE

Ms Marlene H. Dortch
Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

Re: WC Docket No. 94-102

Dear Ms Dortch:

At the request of staff in the Wireless Telecommunications Bureau, I am enclosing the cost information underlying the charges on Wireless Service Providers ("WSPs") and Mobile Position Center Operators ("MPCs") through which BellSouth anticipates recovering those costs associated with implementation of Phase 2 of Wireless E911 service that under the Commission's *Richardson* decision and the reconsideration of that decision, BellSouth may properly allocate to, and recover from, its WSP and MPC customers.

The cost information that BellSouth is providing in attachments to this letter contains vendor prices. BellSouth is contractually obligated to these vendors not to disclose such information publicly. Moreover, disclosure of such vendor prices would not only be contrary to BellSouth's contractual obligation, but would also adversely affect BellSouth's ability to negotiate competitive vendor prices in the future. This would clearly place BellS0uth at a substantial competitive disadvantage in the marketplace. Accordingly, pursuant to § 0.459 of the Commission's rules, BellSouth requests that such cost information, which constitutes confidential financial information, be withheld from public disclosure. To facilitate BellSouth's request, BellSouth is filing both a public version of the cost submission with the confidential information redacted and a confidential version of its cost submission.

In accordance with Commission rules, I am enclosing one original copy of this letter with the confidential data included. I am also enclosing for public inspection two copies of this letter with those data redacted. Please call me if you have any questions about this filing.

Sincerely,

Kathleen B. Levitz

Attachments

cc: James Schlichting
Barry Ohlson
Blaise Scinto
Dan Grosh
Jennifer Salhus
Patrick Forster

Cost Study Documentation

Introduction and Overview

The purpose of this study is to identify the costs associated with implementing Wireless Service Provider's (WSP's) real-time E2 interfaces to BellSouth's Enhanced 911 database in support of the Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems CC Docket No. 94-102 Rm-8143. These E2 interfaces allow wireless carriers real-time access to BellSouth's ALI databases in order to deliver the wireless subscriber's call back number and location information in the ALI Wireless Carrier database record. BellSouth's 911 System will transmit the ALI data, including the callback number and location information to the Public Safety Answering Point (PSAP) in response to a query (bid) from the PSAP. Additionally, longitude and latitude will be transmitted to the PSAP if delivered by the Wireless Carrier and requested by the PSAP.

The major assumptions associated with this study are:

1. Customer must provide a point-to-point or frame relay data circuit between their Mobile Positioning Center (MPC) and each ALI database with termination of the circuit at the TCP/IP router provided by the ALI database. The provisioning of these circuits is the responsibility of the customer and therefore, is not included in this study.
2. Product Management assumed that there would be five MPCs with each MPC connecting to all four ALI databases. The assumption equates to a total of 20 ALI database ports.
3. Product Management assumed that there would be eleven WSPs.
4. This cost study does not include the cost to upgrade the ALI database to provide the Extended ALI format required for the PSAP retrieval of Phase II data.

The cost study methodology reflects total direct long run incremental cost plus a reasonable allocation of common overhead costs. Common overhead costs include costs, which span the activities of the business, such as general and administrative, executive and planning, accounting and financial, and legal. BellSouth developed a factor that represents a distribution of common overhead costs. The methodology employed to develop the common overhead cost factor is the same process used in developing the common overhead cost factor for unbundled network elements (UNEs). The current UNE common overhead factor is 0.0633. BellSouth adjusted this UNE overhead cost factor to exclude costs, such as product management, which is identified as direct costs in this cost study. The common factor for this study is 0.0631.

Present Value (PV) calculations are based on an 11.25% rate, which has been used in other FCC filings; such as Bellsouth's Thousands-block Number Pooling revised tariff filed dated June 11, 2002. Excel spreadsheets are used for all calculations.

Description of Cost Categories

The cost study is divided into two parts: MPC costs and WSP costs. The costs supporting each part will be explained separately.

MPC

The cost categories are: ALI Database Vendor, Billing Vendor, Product Team, Miscellaneous Equipment and Supplies and per port provisioning.

The ALI Database Vendor costs include a nonrecurring fee for installation, turn-up and testing services per router port and a recurring fee per port for services including 7X24 monitoring and maintenance. Letter Purchase Order No. PR9026L-L-00031, Agreement No. PR9026L supports the costs and services provided.

Billing Vendor costs are monthly cost for billing the service. Letter Purchase Order No. WR#010423819582-001 supports the costs and services provided.

Product Team cost was incurred to develop the service and will continue to be incurred to manage the service.

- Interconnection Services (ICS) - Product Managers are responsible for managing the cross functional team that develops E911 services. They develop forecast and price the services. They also create the collateral material used by the wireless account team and meet with customers, negotiates contracts and handles the escalations regarding implementation, service and billing questions.
- Network Commercialization Unit – This project manager represents the wholesale side of the business. They assure that ICS deliverables pertinent to the overall project are coordinated and provided in a timely manner.
- Product Commercialization Unit – This Program Manager coordinates overall deliverables for deployment of E911 services.
- BellSouth Affiliate Services Corporation - This manager is the BellSouth Regional E911 Architecture Planner. He provides Subject Matter Expert (SME) advice on technical and operational matters related to E911.
- Network Operations Support – This person manages the interface between BellSouth and the ALI Database Vendor.
- Network Planning and Engineering – This person develops Transport Methods and Procedures, validates technical solutions and acts as point of escalation for transport problems.
- Contractor – This person provides SME advice on E2 implementation issues.

Operating Level Agreement I02300 supports Miscellaneous Equipment and Supplies costs. This cost category includes labor and equipment racks for the ALI Database Vendor routers, power, cabling and connections to the wiring cabinets, POTS lines and backboards.

BellSouth provisioning cost per port are those labor costs required to provision the service per port. The work consists of provisioning the service from the customer purchased facilities in the data center to the ALI database equipment.

- Technician – receives order, perform wire pulls, installs connectors and completes order.
- Technical Manager – receives Teleprocessing Requests (TPRs) to terminate E2 circuit to data center, conducts physical survey and issues order for technician to terminate circuit.
- Contractor – issues TPRs and coordinates and troubleshoots E2 circuits.

WSP

The cost categories are: ALI Database Vendor, Billing Vendor, Product Team and Interconnection Services Sales.

The ALI Database Vendor costs include the nonrecurring engineering fees and recurring services fee per ALI node for the installation and testing and maintenance of the modifications to the ALI nodes for Wireless Phase II location information. Letter Purchase Order No. PR9026L-L-00026, Agreement No. PR9026L supports the costs and services provided.

Billing Vendor costs are monthly cost for billing the service. Letter Purchase Order No. WR#010423819582-001 supports the costs and services provided.

Product Team cost was incurred to develop the service and will continue to be incurred to manage the service. The same Product Team member descriptions apply as above, but relates to WSP E2 service development and implementation issues.

The Interconnection Services Sales category consists of an Account Executive (AE), who is the point of contact with the WSPs. The AE will assist with contract negotiation and implementation meetings with the WSP.

Description of Cost Development

MPC

No cost calculations were required for the ALI Database Vendor, Billing Vendor and Miscellaneous Equipment and Supplies costs. These costs are supported by vendor bills. The Product Team cost development required multiplying the percentage of the Product Team members time dedicated to the E2 Interface project by the percentage of the E2 time associated with MPC by the standard annual hours by the appropriate labor rate for the time period the work was performed. The Product Team costs are divided between product development (year 1) and on going product support (years 2 through 5).

Multiplying the work times for each job function per router port by the appropriate levelized labor rate developed the provisioning costs per router port.

WSP

The ALI Database Vendor and Billing Vendor categories did not require cost calculations, since these costs were obtained as vendor billing. The Product Team costs were developed in a similar manner as above, except that the percentage were for time working on the WSP portion of the E2 Interface project. The Account Executive hours per WSP were multiplied by the estimated number of WSP that will subscribe to this service and by the appropriate labor rate.

Description of Cost Recovery

MPC

The cost recovery unit for this category is a router port. The ALI Database Vendor bills BellSouth a nonrecurring cost per port and a recurring cost per port. Nothing needs to be done to these costs to put them on a per router port basis.

The Billing Vendor, Product Team and Miscellaneous Equipment and Supplies however, need to be expressed in costs per router port. Product Management assumed that there would be five MPCs with four ports per MPC. The four port per MPC is based on the assumption that each MPC will connect to the four BellSouth ALI nodes (Charlotte, North Carolina; Miami, Florida; Nashville, Tennessee and Birmingham, Alabama). This assumption provides a total of 20 ALI nodes.

The Billing Vendor will charge BellSouth a $20 set-up fee per account. The four-port per MPC assumption was divided into the set-up fee and added to the ALI Database Vendor nonrecurring cost per port.

The Miscellaneous Equipment and Supplies costs were divided by the 20-router port assumption and that result was also added to the monthly ALI and Billing costs determined above.

The Billing Vendor will charge BellSouth the lower of one percent of the billed amount or a minimum of $150 each month per MPC. Product management assumed that the minimum charge per account would apply. The minimum monthly charge was divided by the 4-port assumption and the results were added to the monthly costs per router port from the ALI Database vendor.

The provisioning per router port cost developed above was added to the per router port nonrecurring cost from the ALI Database Vendor, the per router port set-up cost from the Billing Vendor and the per router port cost associated the Miscellaneous Equipment and Supplies.

The Product Team costs are divided between product development and annual product support. The product support in years two through five was present valued to year one

and added to the product development costs. These costs were also divided by the average number of router ports per MPC and the number of MPCs expected to connect to the ALI node. The Product Team costs per router port were then added to the other nonrecurring costs per router port.

The total nonrecurring and recurring costs per router port were then multiplied by one plus the common cost factor to reflect an allocation of common costs.

WSP

The cost recovery unit for this category is cost per wireless call. The reports from the ALI Database Vendor will indicate the number of Phase II ALI database update requests per WSP. Duplicate request for the same wireless call will be removed from the total before the customer's bill is calculated. With the removal of the duplicate update requests, the remaining update requests are equivalent to the number of wireless calls.

The first step is to determine the demand for the service, which is dependent upon the number of Public Service Answering Positions (PSAPs) that have requested Extended ALI format. Once the PSAP has requested the Extended ALI format, the Wireless Carrier has six months to begin sending the location information. The incremental annual deployment rate of PSAPS converting to Extended ALI format was 8%, 22%, 25%, 19% and 9%. Based on this deployment rate, 83% of the PSAPs would convert in the first five years. The deployment rate of wireless calls requiring location information to the PSAP was developed from this rate with the six-month delay. The following annual rates were assumed: 4%, 15%, 23.5%, 22% and 14% with a total of 78.5%. It was also assumed that this deployment rate of wireless calls requiring location information would generate an approximate number of ALI update requests. This deployment rate for calls was assumed therefore, to be the deployment rate of ALI update requests.

The next step was to obtain a report for the number of wireless ALI Database record retrieval requests to the ALI database for twelve months ending December 31, 2001. This request volume is considered a conservative estimate since it does not contain ALI retrieval requests that result in a "No Record Found." The request volume was then inflated by 1.2% per year, the population inflation rate for the United States for the next five years per the Census Bureau Web site. The forecast for each year was then multiplied by the cumulative deployment rate for wireless retrieval request with location information. The final step in calculating the demand was to present value the five-year forecast.

Next, all the costs associated with WSP were summarized. The ALI Database Vendor development cost was added to the present value of the Product Team cost (development and annual product support). The monthly ALI Database Vendor cost per ALI node was multiplied by the number of ALI nodes (4 nodes) and by 12 to obtain an annual amount. Five years of the annual ALI node services fee was present valued and added to the other costs. The Billing set-up fee was multiplied by 11 (assumed number of Wireless Carriers) and added to the present value of the calculation of the monthly Billing cost

times 12 months times 5 years (term of the Interconnection contracts) times 11 carriers. The Billing cost was then added to the other WSP costs. The total present value of costs for the WSP category was divided by the present value of the five years of ALI retrieval request to produce a cost per ALI Database retrieval request. Finally, costs per ALI Database retrieval request was multiplied by one plus the common cost factor to reflect an allocation of common costs.

	A	B	C	D	E	F	G	H	I
1	BellSouth Region								
2	Index Sheet								
3	Study Period: 2002 - 2006								
4									
5									
6									
7									
8									
9			**Sheet Name:**		**Description:**				
10			Index		E911 Wireless E2 Interface - Wireless Service Provider				
11			INPUTS		Inputs				
12			WP200		Wireless Carrier Costs Calculation				
13									
14									
15									
16									
17									
18									
19									
20									
21									

	A	B	C	D
1	BellSouth Region			
2	Inputs			
3	Study Period: 2002 - 2006			
4				
5				
6	Item/Description			Amount
7	Description			
8				
9	**ALI Database Vendor Inputs**			
10				
11	ALI Database Vendor Development			
12				
13	ALI Database Vendor Monthly Service Fee per ALI node			
14				
15	Number of ALI nodes			4
16				
17	Number of Wireless Carriers			7
18				
19	**Demand Inputs**			
20	Wireless ALI Database Bids 12 Months			10,920,916
21				
22	Rate of Increase of Wireless ALI Database Bids over next 5 years			1.2%
23				
24	**Billing Cost**			
25				
26	Billing Start up per MPC and Wireless Carrier			
27				
28	Monthly Billing			
29				
30	**Product Team**	JFC/JG		**Hrs**
31				
32	Standard Hours per Year			1928
33	ICS Sales Account Executive	AEWOC		6
34	Year 1 Product Development			
35	ICS Marketing JG59 #1 Time allocated to E2 Interface	JG59		40%
36	ICS Marketing JG59 #1 Time allocated to WSP	JG59		90%
37	ICS Marketing JG59 #2 Time allocated to E2 Interface	JG59		30%
38	ICS Marketing JG59 #2 Time allocated to WSP	JG59		95%
39	ICS Marketing JG58 #1 Time allocated to E2 Interface	JG58		60%
40	ICS Marketing JG58 #1 Time allocated to WSP	JG58		90%
41	ICS Marketing JG58 #2 Time allocated to E2 Interface	JG58		100%
42	ICS Marketing JG58 #2 Time allocated to WSP	JG58		80%
43	Network Planning & Engineering Time allocated to E2 Interface	JG59		5%
44	Network Planning & Engineering Time allocated to WSP	JG59		40%
45	Network Operations Support Time allocated to E2 Interface	JG58		50%
46	Network Operations Support Time allocated to WSP	JG58		70%
47	NCU Time of year allocated to E2 Interface	JG58		50%
48	NCU Time allocated to E2 Interface	JG58		40%
49	NCU Time allocated to WSP	JG58		50%
50	PCU Time of year allocated to E2 Interface	JG59		33%
51	PCU Time allocated to E2 Interface	JG59		100%
52	PCU Time of year allocated to E2 Interface	JG59		67%
53	PCU Time allocated to E2 Interface	JG59		50%
54	PCU Time allocated to WSP	JG59		90%
55	BASC Time allocated to E2 Interface	JG59		5%
56	BASC Time allocated to WSP	JG59		40%
57	Contractor Time allocated to E2 Interface			40%
58	Contractor Time allocated to WSP			50%
59				

	A	B	C	D
1	BellSouth Region			
2	Inputs			
3	Study Period: 2002 - 2006			
4				
5				
6	Item/Description			Amount
7	Description			
60	Year 2 Ongoing Product Support			
61				
62	ICS Marketing Time of year allocated to E2 Interface	JG58		0.5
63	ICS Marketing Time allocated to E2 Interface	JG58		100%
64	ICS Marketing Time of year allocated to E2 Interface	JG58		0.5
65	ICS Marketing Time allocated to E2 Interface	JG58		50%
66	ICS Marketing Time allocated to WSP	JG58		80%
67				
68	Year 3 thru 5 Ongoing Product Support			
69				
70	ICS Marketing Time allocated to E2 Interface each year	JG58		50%
71	ICS Marketing Time allocated to WSP each year	JG58		80%
72				
73	**Levelized Labor Rates**			
74	Levelized 2002 - 2006	AEWOC		$40.38
75	2002	WS32		$30.30
76	Levelized 2002 - 2006	WS32		$32.43
77	2002	JG58		$45.01
78	Levelized 2002 - 2006	JG58		$48.18
79	2002	JG59		$53.63
80	Levelized 2002 - 2006	JG59		$57.41
81				
82	Contractor			$64.00
83				
84	**Cost Factors**			
85				
86	COM			11.25%
87				
88	Study years			5
89				
90	Common Overhead Factor			0.0631
91				
92				
93	**Percent Phase II Wireless Calls**			
94	Year 1			4.0%
95	Year 2			19.0%
96	Year 3			42.5%
97	Year 4			64.5%
98	Year 5			78.5%

	A	B	C
1	BellSouth Region		
2	Wireless Carrier Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
7	COM	INPUTS, Ln 86	11.25%
8	**Non recurring Costs**		
9			
10	ALI Database Vendor Development	INPUTS, Ln 11	
11	ICS Sales AE	INPUTS, Ln33 X Ln116	66
12	Product Team Costs		Hrs.
13	Year 1 Product Development		
14	ICS Marketing JG59	INPUTS, (Ln32 X Ln35 X Ln36) + (Ln32 X Ln37 X Ln38)	1244
15	ICS Marketing JG58	INPUTS, (Ln32 X Ln39 X Ln40) + (Ln32 X Ln41 X Ln42)	2584
16	Network Planning & Engineering JG59	INPUTS, Ln32 X Ln43 X Ln44	39
17	Network Operations Support JG58	INPUTS, Ln32 X Ln45 X Ln46	675
18	NCU JG58	INPUTS, Ln32 X Ln47 X Ln48 X Ln49	193
19	PCU JG59	INPUTS, (Ln32 X Ln50 X Ln51 X Ln54) + (Ln32 X Ln52 X Ln53 X Ln54)	1154
20	BASC JG59	INPUTS, Ln32 X Ln55 X Ln56	39
21	Contractor	INPUTS, Ln32 X Ln57 X Ln58	386
22			
23	Year 2 Ongoing Product Support		
24			
25	ICS Marketing JG58	INPUTS, (Ln32 X Ln62 X Ln63 X Ln66) + (Ln32 X Ln64 X Ln65 X Ln66)	1157
26	Present Value of ICS Marketing Year 2	PV Ln25 @ 1yr, COM 11.25%	1040
27			
28	Year 3 - 5 Ongoing Product Support		
29			
30	ICS Marketing JG58	INPUTS, Ln32 X Ln70 X Ln71	771
31	Present Value of ICS Marketing Year 3-5	PV Ln30 @ 1yr, COM 11.25%	5573
32	Labor Rates		
33			
34	JG58 2002	INPUTS, Ln 77	$45.01
35	JG59 2002	INPUTS, Ln 79	$53.63
36	Contractor	INPUTS, Ln 82	$64.00
37	JG58 Levelized 2002-2006	INPUTS, Ln 78	$48.18
38	AEWOC Levelized 2002-2006	INPUTS, Ln74	$40.38
39	**Monthly Recurring Costs**		
40			
41	ALI Database Vendor Monthly Service Fee per ALI node	INPUTS, Ln 13	
42			
43	Number of ALI nodes	INPUTS, Ln 15	4
44			
45	Service Fee Year 1	Ln41 X Ln43 X 12	
46	Service Fee Year 2	Ln41 X Ln43 X 12	
47	Service Fee Year 3	Ln41 X Ln43 X 12	
48	Service Fee Year 4	Ln41 X Ln43 X 12	
49	Service Fee Year 5	Ln41 X Ln43 X 12	
50			
51	Present Value of Service Fee		
52	Year 1	Ln45	
53	Year 2	PV Ln46 @ 1yr, COM 11.25%	
54	Year 3	PV Ln47 @ 2yr, COM 11.25%	
55	Year 4	PV Ln48 @ 3yr, COM 11.25%	
56	Year 5	PV Ln49 @ 4yr, COM 11.25%	
57			
58	Total Present Value Service Fee	Sum Ln52 to LN56	
59			

	A	B	C
1	BellSouth Region		
2	Wireless Carrier Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
60	Monthly Billing	INPUTS, Ln 28	
61	Billing Start up per MPC and Wireless Carrier	INPUTS, Ln 26	
62	Yearly Billing	Ln60 X 12	
63			
64	PV of Billing over 5 year contract	PV Ln62 @ 11.25%	
65			
66	Total Billing over Agreement all carriers	(Ln64 + Ln61) X Ln116	$81,121.97
67			
68	**Demand**		
69	Growth Rate	INPUTS, Ln 22	1.2%
70	End of Year 0	INPUTS, Ln 20	10,920,916
71	End of Year 1	Ln70 X (1+Ln69)	11,051,967
72	End of Year 2	Ln71 X (1+Ln69)	11,184,591
73	End of Year 3	Ln72 X (1+Ln69)	11,318,806
74	End of Year 4	Ln73 X (1+Ln69)	11,454,631
75	End of Year 5	Ln74 X (1+Ln69)	11,592,087
76	End of Year 6	Ln75 X (1+Ln69)	11,731,192
77			
78	Mid Year 1	(Ln70+Ln71)/2	10,986,441
79	Mid Year 2	(Ln71+Ln72)/2	11,118,279
80	Mid Year 3	(Ln72+Ln73)/2	11,251,698
81	Mid Year 4	(Ln73+Ln74)/2	11,386,719
82	Mid Year 5	(Ln74+Ln75)/2	11,523,359
83			
84	Year 1	Ln78	10,986,441
85	Year 1 Phase II	Ln84 X INPUTS Ln94	439,458
86	Present Value Year 1	PV Ln85 @ .5 yr, COM11.25%	416,646
87	Year 2	Ln79	11,118,279
88	Year 2 Phase II	Ln87 X INPUTS Ln95	2,112,473
89	Present Value Year 2	PV Ln88 @ 1.5 yr, COM11.25%	1,800,284
90	Year 3	Ln80	11,251,698
91	Year 3 Phase II	Ln90 X INPUTS Ln96	4,781,972
92	Present Value Year 3	PV Ln91 @ 2.5 yr, COM11.25%	3,863,732
93	Year 4	Ln81	11,386,719
94	Year 4 Phase II	Ln93 X INPUTS Ln97	7,344,433
95	Present Value Year 4	PV Ln94 @ 3.56 yr, COM11.25%	5,057,178
96	Year 5	Ln82	11,523,359
97	Year 5 Phase II	Ln96 X INPUTS Ln98	9,045,837
98	Present Value Year 5	PV Ln97 @ 4.5 yr, COM11.25%	5,598,848
99			
100	**Product Team Cost Development**		
101	ICS Sales	Ln11 X Ln38	$2,665.08
102	ICS Marketing	(Ln14 X Ln35) + (Ln15 X Ln34) + (Ln26 X Ln37) + (Ln31 X Ln37)	$501,564.98
103			
104	Network Planning & Engineering & Operations Support	(Ln17 X Ln34) + (Ln16 X Ln35)	$32,440.72
105			
106	NCU	Ln18 X Ln34	$8,677.93
107			
108	PCU	Ln19 X Ln35	$61,884.09
109			
110	BASC	Ln20 X Ln35	$2,067.97
111			
112	Implementation Manager (Contractor)	Ln21 X Ln36	$24,678.40
113			
114	Total Product Team Cost	Sum Ln101 to Ln112	$633,979.17
115			
116	Number of Wireless Carriers	INPUTS, Ln 17	11
117			

	A	B	C
1	BellSouth Region		
2	Wireless Carrier Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
118	**Cost Calculation**		
119			
120			
121	Development Costs	Ln10	
122			
123	Present Value of 5 years of Demand	Sum Ln86, Ln89, Ln92, Ln95, LN98	16,736,688
124			
125	Present Value Of Service Fee	Ln58	
126			
127	Product Team Cost	Ln114	$633,979.17
128			
129	Billing Cost per call	Ln66 / Ln123	$0.004847
130			
131	**Total Cost per call**	(((Ln121+ Ln125+ Ln127) / Ln123) + Ln129) X (1+INPUTS Ln90)	**$0.109868**

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2	Index Sheet								
3	Study Period: 2002 - 2006								
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7									
8									
9			**Sheet Name:**		**Description:**				
10			Index		E911 Wireless E2 Interface - Mobile Positioning Center				
11			INPUTS		Inputs				
12			WP100		Mobile Positioning Center Costs Calculation				
13									
14									
15									
16									
17									
18									
19									
20									
21									

	A	B	C	D
1	BellSouth Region			
2	Inputs			
3	Study Period: 2002 - 2006			
4				
5				
6	Item/Description			Amount
7	Description			
8				
9	**ALI Database Vendor Inputs**			
10				
11	ALI Database Vendor Set-up and Installation per Router Port			
12				
13	ALI Database Vendor Monthly Service Fee per Router Port			
14				
15				
16	**Demand Inputs**			
17				
18	Average number Router Ports per MPC			4
19	Number MPC			5
20				
21	**Billing Cost**			
22				
23	Billing Start up per MPC and Wireless Carrier			
24				
25	Monthly Billing			
26				
27	**Product Team**	**JFC/JG**		**Hrs**
28				
29	Standard Hours per Year			1928
30				
31	Year 1 Product Development			
32	ICS Marketing JG59 #1 Time allocated to E2 Interface	JG59		40%
33	ICS Marketing JG59 #1 Time allocated to MPC	JG59		10%
34	ICS Marketing JG59 #2 Time allocated to E2 Interface	JG59		30%
35	ICS Marketing JG59 #2 Time allocated to MPC	JG59		5%
36	ICS Marketing JG58 #1 Time allocated to E2 Interface	JG58		60%
37	ICS Marketing JG58 #1 Time allocated to MPC	JG58		10%
38	ICS Marketing JG58 #2 Time allocated to E2 Interface	JG58		100%
39	ICS Marketing JG58 #2 Time allocated to MPC	JG58		20%
40	Network Planning & Engineering Time allocated to E2 Interface	JG59		5%
41	Network Planning & Engineering Time allocated to MPC	JG59		60%
42	Network Operations Support Time allocated to E2 Interface	JG58		50%
43	Network Operations Support Time allocated to MPC	JG58		30%
44	NCU Time of year allocated to E2 Interface	JG58		50%
45	NCU Time allocated to E2 Interface	JG58		40%
46	NCU Time allocated to MPC	JG58		50%
47	PCU Time of year allocated to E2 Interface	JG59		33%
48	PCU Time allocated to E2 Interface	JG59		100%
49	PCU Time of year allocated to E2 Interface	JG59		67%
50	PCU Time allocated to E2 Interface	JG59		50%
51	PCU Time allocated to MPC	JG59		10%
52	BASC Time allocated to E2 Interface	JG59		5%
53	BASC Time allocated to MPC	JG59		60%
54	Contractor Time allocated to E2 Interface			40%
55	Contractor Time allocated to MPC			50%
56				

	A	B	C	D
1	BellSouth Region			
2	Inputs			
3	Study Period: 2002 - 2006			
4				
5				
6	Item/Description			Amount
7	Description			
57	Year 2 Ongoing Product Support			
58				
59	ICS Marketing Time of year allocated to E2 Interface	JG58		0.5
60	ICS Marketing Time allocated to E2 Interface	JG58		100%
61	ICS Marketing Time of year allocated to E2 Interface	JG58		0.5
62	ICS Marketing Time allocated to E2 Interface	JG58		50%
63	ICS Marketing Time allocated to MPC	JG58		20%
64				
65	Year 3 thru 5 Ongoing Product Support			
66				
67	ICS Marketing Time allocated to E2 Interface each year	JG58		50%
68	ICS Marketing Time allocated to MPC each year	JG58		20%
69				
70	**Misc Equipment and Supplies**			
71				
72	**Transport Labor per Port**			
73				
74	Technician	WS32		2
75				
76	Technical Manager	JG58		1
77	Number of Nodes			4
78	Implementation Manager (Contractor) per Test (4 ALI nodes)			1.5
79				
80	**Levelized Labor Rates**			
81				
82	2002	WS32		$30.30
83	Levelized 2002 - 2006	WS32		$32.43
84	2002	JG58		$45.01
85	Levelized 2002 - 2006	JG58		$48.18
86	2002	JG59		$53.63
87	Levelized 2002 - 2006	JG59		$57.41
88				
89	Contractor			$64.00
90				
91	**Cost Factors**			
92				
93	COM			11.25%
94				
95	Study years			5
96				
97	Common Overhead Factor			0.0631

	A	B	C
1	BellSouth Region		
2	MPC Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
7	**Non recurring Costs**		
8			
9	ALI Database Vendor Set-up and Installation per Router Port	INPUTS, Ln 11	
10			
11	Billing Start up per MPC and Wireless Carrier	INPUTS, Ln 23	
12			
13	Average number Router Ports per MPC	INPUTS, Ln 18	4
14			
15	Billing Start up Costs	Ln11/ Ln13	
16			
17	Misc Equipment and Supplies	INPUTS, Ln 70	
18			
19	Number MPC	INPUTS, Ln 19	5
20			
21	Misc Cost per Router Port	Ln17/Ln19/Ln13	
22			
23	**Monthly Recurring Costs**		
24			
25	ALI Database Vendor Monthly Service Fee per Router Port	INPUTS, Ln 13	
26			
27	Monthly Billing	INPUTS, Ln 25	
28	Monthly Billing per Router Port	Ln27/Ln13	
29			
30	**Labor Costs per Router Port**		
31	Technician	INPUTS, Ln 74	2
32			
33	Technical Manager	INPUTS, Ln 76	1
34			
35	Implementation Manager (Contractor) per Node Test	INPUTS, Ln 78/INPUTS, Ln77	0.375
36			
37	Levelized Labor Rates		
38			
39	WS32	INPUTS, Ln 83	$32.43
40			
41	JG58	INPUTS, Ln 85	$48.18
42			
43	Implementation Manager (Contractor) per Test (4 ALI nodes)	INPUTS, Ln 89	$64.00
44			
45			
46	Technician Cost per Router Port	Ln31 X Ln39	$64.86
47			
48	Technical Manager Cost per Router Port	Ln33 X Ln41	$48.18
49			
50	Implementaion Manager Cost per Router Port	Ln35 X Ln43	$24.00
51			

	A	B	C
1	BellSouth Region		
2	MPC Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
52	Product Team Costs		Hrs.
53	Year 1 Product Development		
54	ICS Marketing JG59	INPUTS (Ln29 X Ln32 X Ln33) + (Ln29 X Ln34 X Ln35)	106
55	ICS Marketing JG58	INPUTS (Ln29 X Ln36 X Ln37) + (Ln29 X Ln38 X Ln39)	501
56	Network Planning & Engineering JG59	INPUTS, Ln29 X Ln40 X Ln41	58
57	Network Operations Support JG58	INPUTS, Ln29 X Ln42 X Ln43	289
58	NCU JG58	INPUTS, Ln29 X Ln44 X Ln45 X Ln46	193
59	PCU JG59	INPUTS, (Ln29 X Ln47 X Ln48 X Ln51) + (Ln29 X Ln49 X Ln50 X Ln51)	128
60	BASC JG59	INPUTS, Ln29 X Ln52 X Ln53	58
61	Contractor	INPUTS, Ln29 X Ln54 X Ln55	386
62			
63	Year 2 Ongoing Product Support		
64			
65	ICS Marketing JG58	INPUTS, (Ln29 X Ln59 X Ln60 X Ln63) + (Ln29 X Ln61 X Ln62 X Ln63)	289
66	Present Value ICS Marketing Year 2	PV Ln65 @ 1yr., 11.25%	260
67			
68	Year 3 thru 5 Ongoing Product Support		
69			
70	ICS Marketing JG58	INPUTS, Ln29 X Ln67 X Ln68	193
71	Present Value ICS Marketing Year 3-5	PV Ln65 @ 2yr., 11.25% + PV Ln65 @ 3yr., 11.25% + PV Ln65 @ 4yr., 11.25%	1393
72			
73	Labor Rates		
74			
75	JG58 2002	INPUTS, Ln 84	$45.01
76	JG59 2002	INPUTS, Ln 86	$53.63
77	Contractor	INPUTS, Ln 89	$64.00
78	JG58 Levelized 2002-2006	INPUTS, Ln 85	$48.18
79			
80	Product Team Cost Development		
81			
82	ICS Marketing	(Ln54 X Ln76) + (Ln55 X Ln75) + (Ln66 X Ln78) + (Ln71 X Ln78)	$107,896.69
83			
84	Network Planning & Engineering & Operations Support	(Ln56 X Ln76) + (Ln57 X Ln75)	$16,118.85
85			
86	NCU	Ln58 X Ln75	$8,677.93
87			
88	PCU	Ln59 X Ln76	$6,876.01
89			
90	BASC	Ln60 X Ln76	$3,101.96
91			
92	Implementation Manager (Contractor)	Ln61 X Ln77	$24,678.40
93			
94	Total Product Team Cost	Sum Ln82 to Ln92	$167,349.84
95			
96	Product Team Cost per Router Port	Ln94/Ln13/Ln19	$8,367.49
97			

	A	B	C
1	BellSouth Region		
2	MPC Costs		
3	Study Period: 2002 - 2006		
4			
5			
6	Item/Description	Source	Amount
98			
99	Common Overhead Factor	INPUTS, Ln 97	0.0631
100			
101	**Total Non-recurring Costs per Router Port**	(Ln9 + Ln15 + Ln21 + Ln46 + Ln48 + Ln50 + Ln96) X (1+Ln99)	**$17,452.73**
102			
103	**Total Recurring Costs per Router Port**	(Sum Ln25, LN28) X (1+Ln99)	**$731.55**